

**REMARKS**

This communication responds to the Office Action mailed on December 2, 2008. Claims 1, 11, 15 and 19 are amended, no claims are canceled, and no claims are added in this communication. As a result, claims 1-2, 4-11 and 13-22 are now pending in this Application.

**§ 101 Rejection of the Claims**

Claims 11-14 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Applicant has amended claim 11, as suggested by the Office, by replacing the term of “**machine-accessible medium**” with “**computer readable medium**”, and thus believes that this amendment of claim 11 overcomes the rejection of claims 11-14 under 35 U.S.C. § 101. Reconsideration and withdrawal of the rejection of claims 11-14 under 35 U.S.C. § 101 are thus respectfully requested.

**§ 103 Rejection of the Claims**

Claims 1, 2, 4-7, 9-11, 13 and 15-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over EP0928084 A2 (Mitsubishi Denki Kabushiki Kaisha (Inventors: Poon et al.), hereinafter “Poon”) in view of Tzannes (U.S. 6,498,808).

Claim 8 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Poon and Tzannes and further in view of ANSI/IEEE 1999 standard.

Claim 14 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Poon and Tzannes and further in view of Kobayashi (U.S. 2004/0218627 A1, hereinafter “Kobayashi”).

The Applicant does not admit that the cited references are prior art and reserves the right to swear behind these references at a later date. In addition, because the Office has not properly established a *prima facie* case of obviousness, the Applicant respectfully traverses the rejection of the claims.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). As discussed in KSR International Co. v. Teleflex Inc. et al. (U.S. 2007), the determination of

obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence. *See Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 7, 1336-37 (Fed. Cir. 2005). The legal conclusion, that a claim is obvious within § 103(a), depends on at least four underlying factual issues set forth in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966): (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) evaluation of any relevant secondary considerations.

The KSR Court further held that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (*See In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) cited with approval in *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-41 (2007)).

Therefore, the test for obviousness under §103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. (*Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir.1985).) The Examiner must, as one of the inquiries pertinent to any obviousness inquiry under 35 U.S.C. §103, recognize and consider not only the similarities but also the critical differences between the claimed invention and the prior art. (*In re Bond*, 910 F.2d 831,834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990).) Critical differences in the prior art must be recognized (when attempting to combine references). (*In re Bond*, 910 F.2d 831,834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990).)

Moreover, the fact that a reference teaches away from a claimed invention is highly probative that the reference would not have rendered the claimed invention obvious to one of ordinary skill in the art. (*Stranco Inc. v. Atlantes Chemical Systems, Inc.*, 15 USPQ2d 1704, 1713 (Tex. 1990).) When the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious. (*Id.* at 4 citing *United States v. Adams*, 383 U.S. 39, 51-51 (1966).)

“If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not

sufficient to render the claims *prima facie* obvious.” (*In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The CCPA has also noted that “[t]he court must be ever alert not to read obviousness into an invention on the basis of the applicant’s own statements; that is, we must view the prior art without reading into that art appellant’s teachings.” *In re Sponnoble*, 160 USPQ 237, 243 (CCPA 1969). These principles have not been changed by the ruling in *KSR*.

Independent claims 1, 11, 15 and 19:

Amended independent claim 1 recites (with emphasis added):

1. A method, comprising:  
**determining by a transmitter whether a state capable of interpreting a selected data type has been maintained by a receiver;**  
**sending the selected data type without self-definition information** from the transmitter to the receiver if the state capable of interpreting the selected data type has been maintained by the receiver; and  
**sending the selected data type with the self-definition information** from the transmitter to the receiver if the state capable of interpreting the selected data type has not been maintained by the receiver.

The Applicant agrees with the admission by the Office, on page 4, that Poon does not disclose the claimed feature of “**determining whether a state capable of interpreting a selected data type has been maintained by a receiver**”. The Applicant thus submits that Poon cannot disclose **sending the selected data type without or with the self-definition information based on whether the state has been maintained by the receiver** as claimed in claim 1.

Tzannes does not cure this defect of Poon. The Applicant submits that the statements by the Office (e.g., line 13 of page 4 - line 11 of page 5) fail to support the conclusion that Tzannes discloses the features of “**determining by a transmitter whether a state capable of interpreting a selected data type has been maintained by a receiver**”, and then **sending the selected data type without or with the self-definition information based on whether or not the state has been maintained by the receiver** as claimed in amended claim 1, for the reasons stated below.

Tzannes, at col. 13, lines 13-61, and col. 13, line 62 - col. 14, line 32, relied upon by the Office Action, states as follows (with emphasis added):

"It is apparent from these requirements that it is necessary for the SRA protocol to provide: a. **a method for synchronizing the transmitter and receiver transition to the new BAT**; b. **robust transition to the new data rate**; and c. fast transition to the new data rate.....

#### Receiver Initiated NSRA

The receiver initiated NSRA involves the following steps: 1. **During initialization the transmitter and the receiver exchange information describing their maximum and minimum data rate capabilities. This corresponds to the maximum and minimum number of bits per DMT symbol.** 2. **During operation, the receiver determines that the data rate should be increased or decreased.** 3. If the new data rate is within the transmitter's rate capabilities, the receiver proceeds to step 4. 4. The receiver sends the new BAT and the new data rate to the transmitter using the AOC or EOC channel. .....

FIG. 4 shows a flow chart 400 depicting an embodiment of a process in which a Normal Seamless Rate Adaptive (NSRA) transmission bit rate change is initiated by a receiver according to the principles of the invention. In FIG. 4, the steps described in action boxes 410 through 470 correspond to the preceding discussion.

#### Transmitter Initiated NSRA

The transmitter initiated NSRA involves the following steps: 1. During initialization the transmitter and the receiver exchange information describing their maximum and minimum capabilities regarding data rate. This corresponds to the maximum and minimum number of bits per DMT symbol. 2. **The transmitter determines that the data rate should be increased or decreased.** 3. If the new desired data rate is within the receiver's rate capability then the transmitter proceeds to step 4. 4. **The transmitter sends to the receiver the new desired data rate using the EOC or AOC channel.** This is an "NSRA Request" message. 5. The receiver receives the NSRA request message. If the channel can support the new data rate then the receiver proceeds to step 6. If the channel can not support the new data rate then the receiver sends an "SRA Deny" message back to the transmitter using the EOC or AOC channel. 6. The receiver sends the new BAT to the transmitter using the AOC or EOC channel based on the new data rate.....

FIG. 5 shows a flow chart 500 depicting an embodiment of a process in which a Normal Seamless Rate Adaptive (NSRA) transmission bit rate change is initiated by a transmitter according to the principles of the invention. In FIG. 5, the steps described in action boxes 510 through 590 correspond to the preceding discussion."

It is noted, from the above excerpt of Tzannes, that Tzannes and amended claim 1 have different goals and adopt different approaches. For example, in Tzannes, the receiver or the transmitter may determine whether the data rate should be increased or decreased. However, the mere capability of determining the data rate in Tzannes does not justify the conclusion that Tzannes also discloses the feature of “determining whether a state capable to interpreting a selected data type has been maintained by a receiver” of claim 1.

Indeed, the Office does not point out and the Applicant cannot find anything within the bounds of Tzannes that shows Tzannes operates so as to determine whether the receiver maintains a state capable of interpreting the selected data type. The Applicant thus submits that Tzannes has nothing to do with determining by the transmitter whether the receiver maintains a state capable of interpreting the selected data type as claimed in amended claim 1.

In addition, the Office does not point out and the Applicant cannot find any portion of Tzannes that discloses self-definition information of any kind. The Applicant thus submits that Tzannes cannot disclose sending the selected data type with or without self-definition information as claimed in claim 1.

In summary, the Applicant submits that Tzannes does not disclose the features of “determining by a transmitter whether a state capable of interpreting a selected data type has been maintained by a receiver”, and then sending, from the transmitter to the receiver, the selected data type without or with the self-definition information based on whether or not the state has been maintained by the receiver as claimed in amended claim 1.

The Applicant thus submits that, even when combined as proposed by the Office, Poon and Tzannes do not teach or suggest the features of “determining by a transmitter whether a state capable of interpreting a selected data type has been maintained by a receiver”, and then sending, from the transmitter to the receiver, the selected data type without or with the self-definition information based on whether or not the state has been maintained by the receiver as claimed in amended claim 1. For at least this reason, the Applicant respectfully submits that the Office has not properly established a *prima facie* case of obviousness with respect to amended independent claim 1.

The above argument presented with respect to amended independent claim 1 also applies to amended independent claims 11, 15 and 19, which have similar features to amended independent claim 1. The Applicant thus respectfully submits that the Office does not establish a *prima facie* case of obviousness of amended independent claims 11, 15 and 19 either.

This conclusion with respect to independent claims 1, 11, 15 and 19 also applies to dependent claims 2, 4-10, 13-14, 16-18 and 20-22 as well, since any claim depending from a nonobvious independent claim is also nonobvious. *See M.P.E.P. § 2143.03.*

Reconsideration and withdrawal of the rejection of claims 1-2, 4-11, and 13-22 under 35 U.S.C. § 103(a) are thus respectfully requested.

**RESERVATION OF RIGHTS**

In the interest of clarity and brevity, every assertion made in the Office Action may not have been addressed. Silence regarding any such assertion does not constitute any admission or acquiescence. All rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference, are reserved. It is not admitted that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, timely objection to such reliance on Official Notice is made, and all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03, are reserved. Similarly, all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04, are reserved.

**CONCLUSION**

All pending claims are believed to be in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (210) 308-5677 to facilitate prosecution of this Application. If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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